

MEDICATION ADHERENCE IN OLDER PEOPLE: PREDICTORS AND STRATEGIES FOR IMPROVEMENT

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Abstract: Medication adherence represents a complex and multidimensional issue in healthcare. Analyzing the factors influencing medication adherence in elderly individuals identifies three main groups: patient-related, medication-related, and environmental factors. Patients facing physical, cognitive, or sensory limitations may struggle with proper medication intake, while a lack of health literacy can contribute to an insufficient understanding of the therapy. The complexity of treatment regimens, medication side effects, and financial factors can also influence adherence to therapy. The consequences of non-adherence to drug therapy can be severe, including inadequate disease control, worsening symptoms and conditions, increased healthcare costs, and reduced quality of life. Therefore, interventions aimed at improving therapy adherence are crucial. These interventions include simplifying dosing regimens, using reminders, enhancing communication between patients and healthcare providers, and utilizing modern technologies. Clear and supportive communication between patients and healthcare providers can improve therapy adherence in elderly individuals.

Keywords: medication adherence, older adults, communication

Introduction

Population aging is a global phenomenon that significantly impacts health systems and the provision of health care. The increase in life expectancy leads to a larger number of older adults who require long-term medical therapy to maintain health and quality of life [1,2]. However, adherence to prescribed therapy in the elderly is often problematic and may lead to suboptimal treatment results [2,3]. Adherence to drug therapy, that is, taking drugs by the prescribed dose and schedule, is vital for achieving the desired health outcomes [4]. Research shows that older adults often have low adherence rates, which can result in complications, worsening of the disease, and increased health care costs [5]. Depending on the study design, nonadherence rates in the literature range from 16% to 76% [6,7]. Nonadherence to prescribed drug therapy can have severe consequences for the health of patients [4,8]. Improper intake or skipping doses can reduce the effectiveness of the treatment and lead to insufficient control of the disease [7]. Then, lack of adherence can lead to worsening symptoms and disease, which can result in

complications or adverse effects and worse outcomes [8]. In this regard, poor adherence to therapy may require additional medical interventions, a change in medication, or an extension of the duration of therapy [4]. In addition, healthcare costs may increase due to the need for additional treatment or hospitalization [9]. Deteriorating health conditions can affect the patient's quality of life and ability to perform daily activities. Because of all the above, it is essential that patients, especially the elderly, follow their drug therapy according to the doctor's instructions to achieve optimal disease control and reduce possible complications [8].

Understanding the factors influencing medication adherence in the elderly is critical to developing effective interventions to improve adherence and health outcomes [5,7]. This paper presents the most important factors influencing adherence to therapy in the elderly and potential strategies to improve adherence.

Definition of terms

Medication nonadherence is a complex and multidimensional healthcare problem [5]. Adherence is the degree to which patients can

follow recommendations for prescribed treatments [10]. Compliance, adherence, persistence, and concordance are terms used in connection with suboptimal taking of prescribed drug therapy [2]. Although often used synonymously, they provide different perspectives on the patient-healthcare professional relationship and appropriate medication administration. Compliance is the patient following the doctor's recommendations, while adherence is behavioral compliance. Compliance refers to the agreement between the doctor and the patient about the purpose and use of the drug. Persistence measures the time between the first and last drug intake in cases where the patient stops therapy relatively soon after starting the treatment [2,5].

Awareness of intentional and unintentional non-adherence is crucial for developing effective interventions to improve drug therapy adherence [10]. Intentional non-adherence can be considered a process in which a patient actively chooses not to use treatment or to follow treatment recommendations [2]. Unintentional non-adherence refers to unplanned behavior and is less related to beliefs and level of cognition than intentional non-adherence. Unintentional adherence can result from forgetting and not knowing the correct way to use medications [2].

Factors affecting adherence to drug therapy in the elderly

Many factors can affect adherence to drug therapy in older people [1,5]. They can generally be divided into three broad groups: patient-related, drug-related, and social and economic factors.

Patient-related factors

Elderly patients, especially those with physical, cognitive, or sensory limitations, may have difficulty taking medications properly [1,9, 10]. For example, people with arthritis may have difficulty opening medication bottles, while people with dementia may forget to take their medication or take it at the wrong dose [10]. Lack of understanding of the importance of adherence to therapy can lead to incorrect medication intake, such as skipping doses or incorrect dosing [11]. Then, a lack of

understanding about the consequences of non-adherence to therapy can lead to an underestimation of the severity of the disease or a lack of awareness of potential complications [12]. In addition, the risk of medication errors may increase, which may reduce the effectiveness of therapy and lead to poor health outcomes. Older adults who lack an understanding of the importance of adherence may need additional education and support from healthcare providers to improve adherence and achieve better health outcomes [2,7].

Older patients with a higher level of health literacy are usually better informed about their medications and understand the importance of proper medication intake and possible side effects [9]. They can better understand the medication instructions given to them by a healthcare professional, including the dosage, method of administration, and time of taking the medication [7]. Next, they are more likely to ask relevant questions about their medications, which can improve their understanding and reduce the risk of medication errors. In addition, they better assess the accuracy of drug information they find on the Internet or other sources, thereby reducing the risk of accepting inaccurate or unreliable information [9]. Considering these factors, improving health literacy among older adults may be crucial to improving medication adherence and their health and quality of life [10].

Drug-related factors

The complexity of treatment regimens significantly impacts adherence in older people for several reasons. First, older people often have chronic diseases that require multiple drug therapy [1,13]. With the increase in the number of drugs, the complexity of the therapeutic regimen also increases, which can make it difficult to follow and take the prescribed medications in the correct schedule [5]. Second, the treatment regimen's complexity can manifest through different ways of administering medications, such as oral tablets, drops, injections, and patches. The variety of drug administration methods can further complicate adherence, especially if the patient is unable to self-administer certain forms of medication or if side effects occur because of a particular administration method [10]. Third,

different medication instructions, such as different dosing schedules, specific conditions of administration [e.g., before meals or after meals], or dietary requirements [e.g., drinking more water], may further complicate adherence to therapy [13]. A meta-analysis of 76 studies showed that 72% of patients on a once-daily regimen were adherent, 69% on a twice-daily regimen, 65% on a three-times-daily regimen, and 51% on a four-times-daily regimen [14]

The presence of unpleasant side effects of drugs can significantly affect adherence to drug therapy in older people [7]. Undesirable side effects of medications can make treatment adherence difficult for older people, reducing quality of life and motivation to take medications. Fear of side effects can lead to non-adherence to therapy, even if they are rare or mild. In addition, they can stop therapy on their initiative if they feel unpleasant side effects, which can lead to a lack of treatment effectiveness. Elderly patients with side effects may require the support of healthcare professionals to continue therapy and treatment effectiveness. Managing adverse drug reactions and providing support may be vital in improving adherence in older adults [12].

Social and economic factors

Social factors can have a significant impact on adherence to drug therapy in older people [5]. People living alone or without the support of family and friends may feel lonely and depressed, which may lead to a lack of motivation to adhere to therapy [7]. Limited access to health services, such as difficulties with transportation to doctors or pharmacies, can make it difficult for older people to collect their medications regularly. Also, financial factors can be an obstacle to taking medicines properly because some drugs can be expensive or not covered by health insurance [1,15]. High treatment costs for older people may limit access to specific therapies or force patients to choose different medications, affecting adherence [5,15].

INTERVENTIONS AIMED AT IMPROVING ADHERENCE TO MEDICATION THERAPY

Interventions aimed at unintentional non-adherence include simplifying dosing regimens, reminders, improved patient-

physician communication, an individualized approach to each patient, and introducing or improving patient counseling [7,14,16–18].

Attempts to increase adherence are increasingly using modern technologies [2,4,7]. Currently, the Internet and the mobile phone are often used in interventions to improve adherence [18]. Short message service [SMS] is increasingly used to remind patients to take their medication. SMS enables instant delivery of short text messages to individuals at any time, place, and environment. As such, SMS reminders are a straightforward method with low intrusiveness and relatively low cost [2,4].

Communication between patient and doctor is of utmost importance, especially regarding adherence to therapy [11,16,18]. Healthcare professionals should never assume a patient is adhering to treatment [19]. Questioning patients about medication habits is also recommended [2]. In the study by Van Dulmen and Van Bijnen, GPs were shown videos of their consultations. Afterward, they were asked why they did not ask specific questions or why some of the patients' questions were ignored. GPs often cited lack of time as a reason for this, but there was also an element of presumption of patient adherence to therapy [19]. Through clear communication, the physician can provide detailed information about the importance of treatment, its goals, dosage, method of administration, and possible side effects, which can improve patient understanding and motivate them to adhere to therapy [19]. In addition, effective communication can help set realistic therapy expectations, reduce frustration, and increase patient motivation to adhere to treatment [18]. Through empathic and supportive communication, the physician can provide emotional support and motivate elderly patients to adhere to treatment despite side effects or difficulties. In this way, the doctor allows patients to ask questions and express their concerns or doubts regarding the therapy, contributing to better understanding and cooperation [11].

CONCLUSION

Adherence to therapy in older people has a more profound impact than is commonly assumed. In addition to directly affecting health, adherence to therapy can significantly impact emotional well-being and social interaction. Older people who adhere to their treatment plans often have greater independence and a sense of control over their lives, which can increase their quality of life. In addition, adherence to therapy can help maintain stable physical conditions, prevent complications, and

reduce the risk of emergency medical interventions. This is extremely important in older people, whose bodies can become increasingly sensitive to changes and deficiencies in the therapeutic approach. Understanding the importance of adherence can help older adults maintain a more active and independent lifestyle, which is critical to their well-being. By identifying and addressing the specific needs of this population, healthcare providers can improve patient outcomes, reduce healthcare costs, and improve the overall quality of life of older adults.

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